

CLAIMS

1. A copper-based alloy having incorporated therein an additive element capable of forming an alloy or an intermetallic compound with Bi and Pb existing independently or 5 in a mutually joined state to improve mechanical properties, particularly tensile strength, thereof at elevated temperatures.
2. A copper-based alloy according to claim 1, wherein the additive element is one or 10 more members selected from the group consisting of Te, P, Zr, Ti, Co, In, Ca, B and misch metal.
3. A copper-based alloy according to claim 1 or claim 2, wherein the additive element is contained in a ratio in a range of 0.01 to 2.0 weight%.
- 15 4. A copper-based alloy according to any one of claims 1 to 3, wherein it suppresses occurrence of a Bi-Pb binary eutectic crystal in a texture thereof.
5. A copper-based alloy according to any one of claims 1 to 4, wherein it contains at 20 least Sn in a ratio of 2.8 to 6.0 weight%, Zn in a ratio of 1.0 to 12.0 weight% and Bi in a ratio of 0.1 to 3.0 weight%.
6. A copper-based alloy according to any of claims 1 to 4, wherein it contains at least Sn in a ratio of 2.8 to 6.0 weight%, Zn in a ratio of 1.0 to 12.0 weight%, Bi in a ratio of 0.1 to 2.4 weight% and Se in a ratio of 0.05 to 1.2 weight%.
- 25 7. A copper-based alloy according to any of claims 1 to 6, wherein it has a Pb content of not more than 0.25 weight%.